

tial feature in the management of patients who are scheduled for a distal splenorenal shunt inasmuch as the risk of this operation, like that for portacaval shunts, is determined largely by the patient's preoperative status.

The findings in our small series of distal splenorenal shunts as well as those of larger series reported in the literature^{2,8,11} have suggested that the Warren shunt can be done with an operative mortality as low as that of a total shunt. Moreover, it is equally as effective as the total shunt in preventing recurrent hemorrhage and has a lower risk of encephalopathy than the total shunt. Whether the Warren shunt will prolong life in cirrhotic patients in whom hemorrhages have occurred is not known because no substantial randomized studies comparing medically treated patients with those in whom Warren shunts were done have been reported. However, in a series of 42 patients with postnecrotic cirrhosis in whom distal splenorenal shunt was done, Zeppa¹⁴ reported an 88 percent probability of survival for six years calculated on an actuarial basis. This is at least twice the rate reported for patients with postnecrotic cirrhosis treated with a total shunt. On the other hand, the survival rate of alcoholic patients was no better than in those treated

with a total shunt. These preliminary data suggest that postnecrotic cirrhotic patients may represent a subset of patients in whom there is prolonged survival following distal splenorenal shunt.

REFERENCES

1. Carlson RE, Ehrenfeld WK: Recurrent variceal hemorrhage after a successful Warren shunt. *Arch Surg* 111:587-589, 1976
2. Hutson DG, Pereiras R, Zeppa R, et al: The fate of esophageal varices following selective distal splenorenal shunt. *Ann Surg* 183:496-501, 1976
3. Inokuchi K, Kobayashi M, Oguwa F, et al: Results of left gastric vena caval shunt for esophageal varices: Analysis of 100 clinical cases. *Surgery* 78:628-636, 1975
4. Jackson FC, Perrin ED, Felix WR, et al: A clinical investigation of the portacaval shunt—V. Survival analysis of the therapeutic operation. *Ann Surg* 174:672-701, 1971
5. Mikkelsen WP: Therapeutic portacaval shunt. *Arch Surg* 108:320-305, 1974
6. Resnick RH, Iber FL, Ishibara AM, et al: A controlled study of the therapeutic portacaval shunt. *Gastroenterology* 67:843-857, 1974
7. Rueff B, Degos F, Degos JD, et al: A controlled study of therapeutic portacaval shunt in alcoholic cirrhosis. *Lancet* 1:655-659, 1976
8. Thomford NR, Sirinek KR, Martin EW: A series of 20 successful Warren shunts. *Arch Surg* 110:584-587, 1975
9. Voorhees AB, Price JB, Britton RC: Portasystemic shunting procedures for portal hypertension—Twenty-six year experience in adults with cirrhosis of the liver. *Am J Surg* 119:501-505, 1970
10. Warren WD, et al: The metabolic basis of portasystemic encephalopathy and the effect of selective vs. nonselective shunts. *Ann Surg* 80:573-579, 1974
11. Warren WD, Salmi AA, Hutson D, et al: Selective distal splenorenal shunt—Technique and results of operation. *Arch Surg* 108:306-315, 1974
12. Warren WD, Zeppa R, Famon JJS: Elective transplenic decompression of gastroesophageal varices by distal splenorenal shunt. *Ann Surg* 166:437-454, 1967
13. Way LW: *Current Surgical Diagnosis and Treatment*, 3rd Ed. Los Altos, Lange Medical Publications, 1977, p 515
14. Zeppa R: Splenorenal shunt. *Current Surgical Techniques* 1(4):5-15, 1977

Patients at Risk for Nodular Goiter

IN IDENTIFYING the patient at greatest risk, bear in mind that the neoplasm is more likely to occur in younger patients. It has a higher incidence in the male, and is of more concern in the patient who has a solitary nodule as opposed to multiple nodules, if it's solid and nonfunctioning. I try to differentiate between the patient who has a nonfunctioning or cold nodule and a patient who has one that's warm. This is not always easy to do, but if it's truly cold it places that person at a higher risk; if it's truly warm, it's probably not cancerous.

—COLIN G. THOMAS, JR., MD, *Chapel Hill, North Carolina*
 Extracted from *Audio-Digest Surgery* Vol. 25, No. 22, in the Audio-Digest Foundation's subscription series of tape-recorded programs. For subscription information: 1577 East Chevy Chase Drive, Glendale, CA 91206.